

## Amendments to the Claims

1-17: (Previously Canceled)

18: (Previously amended) A composition comprising a substrate comprising:

- a) an array of electrodes, each comprising a binding ligand;
- b) a plurality of colloids, each comprising:
  - i) a binding ligand partner; and
  - ii) an electron transfer moiety.

19: (Canceled)

20. (Previously amended) The composition of claim 18 wherein said plurality of colloids further comprise a self-assembled monolayer.

21. (Previously amended) The composition of claim 20 wherein said self-assembling monolayer comprises an alkyl chain.

22. (Previously amended) The composition of claim 18 wherein said substrate is a printed circuit board.

23. (Previously amended) The composition according to claim 18 wherein said electrodes are gold.

24. (Currently amended) The composition according to claim 18 wherein said [[ETM]] electron transfer moiety is a transition metal complex.

25. (Previously amended) The composition according to claim 24 wherein said transition metal complex is ferrocene.

26: (Withdrawn) The composition according to claim 18 wherein said ETM is an organic ETM.

27. (Previously amended) The composition according to claim 18 wherein said binding ligand is a first nucleic acid and said binding ligand partner is a second nucleic acid.

28-35: (Canceled)

36. (Currently amended) A composition comprising a substrate comprising:

- a) an array of electrodes, each comprising a binding ligand;
- b) a plurality of colloids, each comprising a binding ligand partner; and
- c) an electron transfer moiety.

37. (Previously presented) The composition of claim 36 further comprising a detector.